

Abstract of the Disclosure

Multi-modal coils for coupling MRI RF signals from an anatomical region(s) to be imaged. The coil includes a segmented annular base ring conductor including a plurality of capacitances disposed between the segments, and at least one arcuate conductor symmetrically connected at each end to the base ring, one end terminating in direct contact with the base ring, the other end electrically connected to the base ring via two of the capacitive electrical connections. The RF coil is operable in multiple receiving modes in phase quadrature to establish a rotating magnetic field phasor orthogonal to the temporally constant uniform magnetic field of the magnetic resonance instrument. The RF coil can be combined with a second RF coil to simultaneously image two anatomical regions.

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